



**UNITED STATES DEPARTMENT OF COMMERCE  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/452,843	05/30/95	SETTE A	014137-00802

020350 18M1/0909  
TOWNSEND AND TOWNSEND AND CREW  
TWO EMBARCADERO CENTER EIGHTH FLOOR  
SAN FRANCISCO CA 94111

EXAMINER
CUNNINGHAM, T

ART UNIT	PAPER NUMBER
1816	

DATE MAILED: 09/09/97

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
**08/452,843**

Applicant(s)

**Sette et al.**

Examiner  
**Thomas Cunningham**

Group Art Unit  
**1816**



- ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 1 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

- ☒ Claim(s) 1-3 \_\_\_\_\_ is/are pending in the application.
- Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☒ Claims 1-3 \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- ☐ Notice of References Cited, PTO-892
- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

Inventions 1-10. Claims 1-3 as they encompass or recite an MHC Class I supermotif selected from one of those enumerated below:

- I. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Met
- II. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Ile
- III. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Phe<sup>1</sup>
- IV. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Trp
- V. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Tyr
  
- VI. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Met
- VII. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ile
- VIII. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Phe
- IX. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp
- X. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr

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<sup>1</sup> Conventional aromatic amino acids encompass Phe, Try and Tyr which the restriction requirement specifically enumerates. It is not the Examiner's intent to imply that other unconventional aromatic amino acids or D-amino acids are excluded. Applicant may also choose to elect such an unconventional residue.

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Inventions 11-20. Claims 1-3 as they encompass or recite an MHC Class II supermotif selected from one of those enumerated below:

XI. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Met

XII. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Ile

XIII. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Phe

XIV. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Trp

XV. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Tyr

XVI. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Met

XVII. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ile

XVIII. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Phe

XIX. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp

XX. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr

2. The inventions are distinct, each from the other because of the following reasons: Inventions I-XX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together, or they have different modes of operation, or they have different functions, or they have different effects. (MPEP § 806.04, MPEP § 808.01). In the instant case the classes of peptides comprising different supermotif amino acid sequences have distinct structures, MHC Class I (or Class II) binding properties and/or comprise

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structurally and functionally distinct T cell epitopes. A search of each distinct peptide motif or structurally distinct peptide places an undue burden upon the Examiner. Further MHC class I binding peptides of different lengths, i.e. 9 residues vs 10 residues would be expected to have distinct binding properties due to the constrained size of the MHC Class I binding cleft.

3. As these inventions are distinct for the reasons given above and the search required for each Group is not required for the other Groups, restriction for examination purposes as indicated is proper. As these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. Applicant is required to point out which species of peptides enumerated by claim 2 correspond to the elected invention.

5. The Examiner will consider rejoining groups encompassing nonapeptides or decapeptides having different binding motifs if the Applicant submits evidence or identifies such evidence now of record showing the HLA binding motifs having different amino acid

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sequences to be obvious variants or clearly admits on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

The Examiner would be willing to examine both L- and D- substitutions in the elected motif if Applicant provides evidence that peptides with the same L- or D-AA substitutions have similar binding properties. E.g. For Invention I that a peptide with a carboxyl-terminal D-Met would have equivalent binding properties as one with L-Met.

6. This restriction requirement was faxed to the Applicant on 8/6/97 but did not result in an election.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas M. Cunningham, Ph.D, J.D. whose telephone number is (703) 308-3968. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

*TM C*  
THOMAS M. CUNNINGHAM  
PRIMARY EXAMINER  
GROUP 1800